Amendments to the Claims:

1.-12. (canceled)

13. (currently amended) A system for generating automation code for a manufacturing and/or processing plant from a description enriched with control-relevant information, the system comprising:

components in the description described in a drawing based on a material flow in the manufacturing and/or processing plant, wherein the drawing comprises control-relevant information, and the components have ports and are represented by at least one functional module, wherein

input/output information is mapped to the ports, wherein the input/output information stems from directed relationships between the components, wherein the input/output information comprising predecessor/successor relationships among the components is included in the description, wherein

signals provided for a transmission via the ports of the components are associated with the functional module and further comprising:

a first mechanism for defining metainformation for the signals; and

a code generator for generating automation code by interconnecting the signals, wherein the automation code is generated on the basis of a structure of the plant and know-how, including the predecessor/successor relationships, previously input into the description.

14-16. (canceled)

17. (previously presented) The system according to claim 13, further comprising a mechanism for inputting control-relevant information for use in the description.

18. (canceled)

19. (previously presented) The system according to claim 13, wherein the material flow, and/or an energy flow, and/or an information flow in the plant is provided as a basis for mapping the directed relationships between the components.

20-22. (canceled)

23. (previously presented) The system according to claim 13, wherein the generation of automation code is provided for central and/or distributed automation solutions.

24-25. (canceled)

26. (currently amended) A method for generating automation code for a manufacturing and/or processing plant from at least one description enriched with control-relevant information, the method comprising:

representing components described in the descriptions by at least one functional block or building block in a drawing based on a material flow in the plant, wherein the drawing comprises control-relevant information, and each component has at least one port;

mapping input/output information regarding the ports between the components, wherein the input/output information stems from directed relationships including predecessor/successor relationships among the components contained in the descriptions;

transmitting signals associated with the functional blocks or building blocks via the ports of the components;

defining metainformation for the signals; and

generating automation code by interconnecting the signals, wherein the automation code is generated on the basis of a structure of the plant and know-how, including the predecessor/successor relationships, previously input into the description.

27-28. (canceled)

29. (previously presented) The method according to claim 26, wherein control-relevant information is input to the description.

30. (canceled)

31. (previously presented) The method according to claim 26, wherein automation code is generated for central and/or distributed automation systems.

32. (canceled)

33. (currently amended) A system for generating automation code for a manufacturing and/or processing plant, the system comprising:

a plant description comprising a plurality of components, each component representing a given element of the plant, each component comprising at least one function module and at least one port, each port representing a connection point on the given element for data communication with another element of the plant, each function module being a reusable software object type that defines characteristics and functions of the given element;

a communication network within the plant comprising a respective controller connected to each of the plant elements;

the description comprising a drawing of the components based on a flow of material in the plant and control-relevant information comprising rules that specify all allowable relationships including predecessor/successor relationships among the plant elements, including allowable information content and flow directions among the ports; and

a code generator that automatically generates automation code for the plant that controls information flows among the controllers based on the description, wherein the automation code is generated on the basis of a structure of the plant and know-how, including the predecessor/successor relationships, previously input into the description.

34. (previously presented) The system of claim 33, wherein the network comprises at least two control zones, each control zone comprising a subset of the plant elements, the network further comprises a coordinating controller for each control zone, and wherein the description describes a topology of the network for the automatic code generation.